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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup>:</b> <b>C12Q 1/68, C12N 9/22, C12P 21/00</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 95/05480</b> <b>(43) International Publication Date:</b> 23 February 1995 (23.02.95)
<b>(21) International Application Number:</b> PCT/CA94/00448 <b>(22) International Filing Date:</b> 18 August 1994 (18.08.94)  <b>(30) Priority Data:</b> 08/109,272 18 August 1993 (18.08.93) US  <b>(71) Applicant (for all designated States except US):</b> ID BIOMEDICAL CORPORATION [CA/CA]; Suite 707, 1177 West Hastings, Vancouver, British Columbia V6E 2K3 (CA). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> DUCK, Peter, D. [CA/CA]; 5408 Woodsworth Avenue, Burnaby, British Columbia V5G 4S3 (CA). BEKKAOU, Faouzi [CA/CA]; 332 McMaster Crescent, Saskatoon, Saskatchewan S7N 0C8 (CA). CROSBY, William, L. [CA/CA]; 202 Dore Crescent, Saskatoon, Saskatchewan S7K 4X9 (CA).  <b>(74) Agents:</b> NASSIF, Omar, A. et al.; McCarthy Tetrault, Toronto Dominion Bank Tower, Suite 4700, Toronto-Dominion Centre, Toronto, Ontario M5K 1E6 (CA).		<b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>  <b>(88) Date of publication of the international search report:</b> 23 March 1995 (23.03.95)
<b>(54) Title:</b> COMPOSITIONS AND METHODS FOR DETECTING TARGET NUCLEIC ACID SEQUENCES UTILIZING FLANKING SEQUENCE ENZYME MOLECULES		
<b>(57) Abstract</b>  Briefly stated, the present invention provides novel compositions and methods for detecting target nucleic acid sequences utilizing adjacent sequence-enzyme molecules. Within one aspect of the present invention, oligonucleotide-enzyme fusion molecules are provided, comprising an enzyme capable of cleaving scissile linkages and an oligonucleotide having the structure (NA <sub>1</sub> ) <sub>x</sub> -S <sub>2</sub> -(NA <sub>2</sub> ) <sub>y</sub> wherein NA <sub>1</sub> and NA <sub>2</sub> are nucleic acid sequences, S is a scissile nucleic acid linkage, x, y, and z are integers from 1 to 1,000 and n is an integer from 1 to 10.		

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# INTERNATIONAL SEARCH REPORT

Intern: 11 Application No  
PCT/CA 94/00448

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 C12Q1/68 C12N9/22 C12P21/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 C12Q C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO,A,89 10415 (MEIOGENICS ,INC.) 2 November 1989 cited in the application see the whole document ---	1-14
Y	EP,A,0 461 731 (LONDON BIOTECHNOLOGY LTD.) 18 December 1991 see page 15, line 5 - line 19 ---	1-14
Y	SCIENCE, vol.110, 1988, LANCASTER, PA US Zuckermann, Ronald N. et al 'A hybrid sequence-selective ribonuclease S' see the whole document ---	1-14
Y	EP,A,0 361 768 (SISKA DIAGNOSTICS,INC.) 4 April 1990 see abstract ---	12,13
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

18 January 1995

Date of mailing of the international search report

06 -02- 1995

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Internr 11 Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP,A,0 361 983 (GENE TRAK SYSTEMS) 4 April 1990 see abstract -----	1,14

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Information on patent family members

International Application No

PCT/CA 94/00448

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